PUBLIC OPINION

CHANGING PERCEPTIONS OF LIFE ON THE FARM

NEW BRUNSWICK, N.J.—Wisconsin dairy farmers are up in arms over bovine somatotropin (BST). And Minnesota's agricultural community may petition its state government to ban all agbiotech-related research for the near future.

Why? "The public is afraid of scientific information they don't understand," according to Ed Slusarczyk, a broadcaster with the Ag Radio Network (Utica, NY). Even today, many farmers hold the same image of growth hormone-treated cows as they did in 1982—aptly illustrated (see above) in a *Business Week* article that year. (In fact, this artwork still graces the pages—and even covers—of farm journals and local newspapers throughout America's heartland from time to time.)

IMAGE UNAVAILABLE FOR COPYRIGHT REASONS

KRISTEN SODERLUND

Speaking at a meeting on "Agricultural Biotechnology and the Public" here in April, Slusarczyk explained that many dairymen simply do not want hormones in their milk; other farmers argue that, because there is already a surplus of milk, using the hormone would force thousands of farmers off the farm. Wisconsin indeed *has* thousands of farmers: the average herd size is just 40 cows, but there are 35,000–40,000 dairy-farmers—giving them considerable clout.

Are their fears unfounded? No, and yes. According to Robert Kalter, a professor of agricultural economics at Cornell University (Ithaca, NY), the impact of BST on productivity is nothing but positive. For dairy herds, the milk yield is improved by 25 percent and the feed efficiency by 8–11 percent—even though the feed must contain more protein than normal. (Hogs and beef cattle gain weight 10–20 percent faster and utilize feed 15–25 percent more efficiently.)

Cornell scientists have been studying experimental BST-treated herds. According to Kalter, beef cattle exhibit a 70-percent reduction in back fat. "Consumer test panels can't tell the difference in taste between the control and the hormone-treated," he says. And the constituents of cow's milk are unchanged by the hormone treatment. In fact, he adds, "FDA has approved milk for sale from test herds for the last 3–4 years."

Kalter also cites a long list of the economic consequences of using BST. The national herd size may become smaller, possibly altering regional production patterns. Total nutrient and feed requirements will be less, resulting in fewer acres devoted to producing the feed. Land prices will drop; so will animal feed prices—and, eventually, consumer prices. All this, and improved product quality.

These consequences have their negative side, as well. Landowners and feed producers may not want prices to drop. And Kalter cites a more serious downside: If the government maintains its price support programs for dairy farmers, it will only add to the present milk surplus. If the government responds by reducing its price supports, farmers will be forced out. "We've got to support some system that will provide a safety net for what is to come," he urges. "We've got to cushion the exodus [from the farm] that will come when BST hits the market."

Obviously, such a scenario is reason enough to make farmers uneasy about the consequences of BST's arrival on the market—but not necessarily enough to turn them into consumer activists. Earl Ainsworth, the editor of *Farm Journal Magazine* (Philadelphia, PA), explains that farmers are used to new and better ways of producing food; what has happened before will happen again. That's not the problem. Farmers need to know what the technology means.

"There are many ways to reach the public with agbiotech information," explains Slusarczyk. These include the United States Department of Agriculture media service, land-grant college publicity offices, the Cooperative Extension Service, farm broadcasters, and farm publications. Most importantly, he urges, "the information supplied should be concise, cogent, and brief...Scientists must either reduce their information to simple laymen's language, or run it through an information office capable of doing so." Or, as Ainsworth puts it, "Tell me less of how this miracle came to be, and more of what it means to me."

—Jennifer Van Brunt

INTELLECTUAL PROPERTY

VARYING VIEWS OF GENENTECH'S LITIGATION

SOUTH SAN FRANCISCO—Genentech is biotech's trend-setter in R&D, financing, marketing, and just about everything else. But whether it will prove a role model in its pioneering litigation procedures remains open to question. And in the meantime, industry experts can't quite agree on how to interpret Genentech's bountiful legal maneuverings.

It doesn't take a Supreme Court justice, however, to discern that Genentech's litigation slate is long indeed. Interestingly, eight of the firm's nine pending lawsuits (see *Bio/Technology* **6**:472, May '88) involve the two rDNA products Genentech markets itself: tissue plasminogen activator (t-PA) and human growth hormone.

"They obviously have a strategy of strong research, vigorously patenting their research, and defending it," concludes E. Anthony Figg of the law firm Bernard, Rothwell & Brown